

# **Habitat & Enhancement Projects:**

## **The Road to Fruition**

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# Identify Key Elements

- **Funding**
- **Purpose**
- **Target Species**
- **Target Species Environmental Requirements**
- **Site Selection**
- **Design**
- **Permits**
- **Construction**
- **Project Conclusion**

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# Funding

- **Dictate species:** target species for funding source (CRFL = fish)
- **Location:**
  - Mitigation: area of impact
  - Regional Programs: APNEP
- **Type of project:**
  - Habitat restoration
  - No take sanctuary
  - Harvest area

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# Project Purpose

- **Many habitat enhancement/stabilization projects provide multiple benefits**
- **Identify the primary purpose of the project**
- **List other benefits of the project**
- **Justify the need:**
  - Previous projects
  - Research
  - History

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# Target Species

- **Funding may be species specific**
- **Primary Goal:** Project benefits to the target species (CRFL = finfish)
- **Secondary Benefits:** (multiple species)
  - Habitat (complexity, nursery)
  - Water quality (nutrients, water clarity)
  - Spawning stock biomass
  - Substrate stabilization



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# Environmental Requirements

- Salinity
- Substrate
- Depth
- Currents
- Energy level
- Dissolved oxygen
- ???

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# Site Selection

- **Location, Location, Location**
- **Environmental Requirements**
- **Use conflicts:**
  - Navigation
  - Historic and currents fishing usage
  - Riparian rights
- **Permit criteria**

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# Design

- **Physical characteristics of the site**
- **Materials:** demonstrated success, cost, availability
- **Use:** fishing – anchor areas
- **Science/research:** multiple patch reefs, bagged shell
- **Drawings/diagrams**
- **Important for permitting and construction**

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# Permits

- **Multiple agency involvement:** Permit review
- **Projects may require permits from more than one agency:**
  - Div. of Coastal Management
  - Div. of Water Resources
  - US Army Corps of Engineers
- **Contact agency representatives for the project area**
- **Just do it:** your project – your responsibility



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# Construction

- **Based previous elements:**
  - **What:** Purpose, design, materials
  - **Where:** Site selection and permits
- **How:**
  - Scale of project
  - Barges/heavy equipment
  - Skiffs and strong backs
- **Who:**
  - Contractors
  - Organization staff
  - Volunteers

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# Project Conclusion

- **When is the project complete?**
  - All materials are deployed
  - Reports are complete and submitted (deadlines)
  - Monitoring required (what and for how long)
  - Photos or sonar images
  - Be clear on all the end of project requirements
- **Caution:** Long-term obligations for monitoring, marking, and maintenance can ultimately be beyond an organizations capability